



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,011	10/24/2003	Alex C. Toy	1023-286US01	9361

28863 7590 09/14/2005
SHUMAKER & SIEFFERT, P. A.
8425 SEASONS PARKWAY
SUITE 105
ST. PAUL, MN 55125

EXAMINER

AGUEL, FERNANDO

ART UNIT	PAPER NUMBER
----------	--------------

3762

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,011

Applicant(s)

TOY ET AL.

Examiner

Fernando Aguel

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 10 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/5/05, 11/17/04, 10/12/04 and 7/2/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (claims 1-10 and 21) in the reply filed on 8/12/05 is acknowledged. The traversal is on the ground(s) that an election of species is not proper because there is no generic claim and further states that the feature of independent claim 1 of Group I claiming a substantially contiguous ground plane layer interrupted by a plurality of gaps is recited by dependent claim 12 of Group II. Applicant further states that the features of independent claim 11 of Group II such as the antenna having a loop-like structure and the first circuit board includes at least one signal plane with an electrostatic discharge layer defining a second aperture in substantially overlapping alignment with the first aperture are included in the dependent claims (9 and 5 respectively) of Group I and therefore restriction is not proper. This is not found persuasive because an election of species requirement does not need to include a generic claim, only distinct species claimed which is the case with the instant case. There is no generic claim since each independent claim is not a broader recitation of the other independent claim. Since INDEPENDENT claim 1 does not require the loop of INDEPENDENT claim 11 and INDEPENDENT claim 11 does not require a substantially contiguous ground plane layer of INDEPENDENT claim 1, they are two species of the generic antenna and display device since neither requires the other elements. As stated in MPEP 803 and MPEP 808.01, a generic claim is not required for an election of species requirement.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 7/5/05, 11/17/04, 10/12/04, and 7/2/04 are noted. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

3. The disclosure is objected to because of the following informalities: the headings in the specifications should not be underlined or in **bold** faced lettering.
4. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and **should include that which is new in the art to which the invention pertains**. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 10 recites the limitation "the aperture of the antenna". There is insufficient antecedent basis for this limitation in the claim since an aperture is not introduced in claim 1 on which claim 10 is dependent, not previously in claim 10.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3762

9. Claims 1 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al (6418346) in view of Teshome (6219255). Nelson discloses a programmer for an implanted medical device with a telemetry antenna on an antenna driver circuit board (column 11, lines 52-55) and a display screen on a graphics circuit (column 12, lines 15-18) but does not disclose a substantially contiguous ground plane layer interrupted by a plurality of outwardly extending gaps to disrupt the flow of eddy currents, nor that the ground plane regions defined by these gaps are interconnected. Teshome teaches a circuit board (figure 3A, element 46) that includes a conductive layer, which can be used as a ground plane layer if the conductive layer is grounded, is separated into interconnected (column 3, line 67 – column 4, line 4)) segments (column 3, lines 64-67) by outwardly extending gaps (Figure 3, elements 48 and 54) to reduce electromagnetic interference (column 18, lines 16-33) which implicitly reduces the number of and therefore disrupts eddy currents within the ground plane layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Nelson et al by including:

- (1) A conductive layer used as a ground plane layer in order to provide a place for an electrical ground connection,
- (2) outwardly extending gaps in the ground plane layer in order to reduce the electromagnetic interference and therefore disrupt eddy currents in the ground plane layer of the circuit board,
- (3) an interconnection in order to assure that the entire layer is grounded.

Art Unit: 3762

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al (6418346) and Teshome(6219255) as applied to claim1 above, and further in view of Conley et al (6418340). Nelson et al and Teshome disclose the invention substantially as claimed but do not disclose the antenna being of a loop-like shape that defines an aperture. Conley et al teach a programmer with a loop-antenna shape (column 4, lines 40 – 48), which inherently defines an aperture. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Nelson et al and Teshome by including the antenna as a loop-like shape in order to reduce the noise detected by the antenna.

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1 – 4, and10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/693015 in view of Teshome (6219255). Teshome

Art Unit: 3762

(6219255) discloses a circuit board (figure 3A, element 46) that includes a conductive layer, which can be used as a ground plane layer when the conductive layer is grounded, separated into interconnected (column 3, line 67 – column 4, line 4)) segments (column 3, lines 64-67) by outwardly extending gaps (Figure 3, elements 48 and 54) to reduce electromagnetic interference (column 18, lines 16-33) which implicitly reduces the number of and therefore disrupts eddy currents within the ground plane layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Nelson et al by including: firstly, a conductive layer used as a ground plane layer in order to provide a place for an electrical ground connection, secondly, outwardly extending gaps in the ground plane layer in order to reduce the electromagnetic interference and therefore disrupt eddy currents in the ground plane layer of the circuit board, and thirdly an interconnection in order to assure that the entire layer is grounded. Claim 9 is rejected on the grounds stated above and further on the fact that it is obvious to combine the feature recited in claim 17 of application 10/693015 with the teachings of claim 1 in the same and in view of the teachings of Teshome (6219255).

This is a provisional obviousness-type double patenting rejection.

Allowable Subject Matter

13. Claims 5 – 8 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Webb et al (US2002/0123673)
- b. Onyshkevych (4201965)
- c. Daum (6704600)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fernando Aguel whose telephone number is 571-272-8687. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FA


JEFFREY R. JASTRZAB
PRIMARY EXAMINER

9/13/05